

Change of microhardness and ....

27147  
S/166/61/000/004/006/007  
B112,B102

difference between an irradiated and a non-irradiated specimen as a function of heating time at a heating rate of  $1^{\circ}\text{C}/\text{min}$ . There are 4 figures and 3 Soviet references.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Physicotechnical Institute AS Uzbekskaya SSR)

SUBMITTED: April 5, 1961

Figure 2a. Melting curves. Legend: (1) radiation dose 0; (2) dose  $21 \cdot 10^6$  r; (3) dose  $44 \cdot 10^6$  r.

Figure 2b. Melting curves. Legend: (1) radiation dose 0; (2) dose  $71 \cdot 10^6$  r; (3) dose  $96 \cdot 10^6$  r.

Figure 3. Temperature difference between non-irradiated and irradiated specimen. Legend: (1) radiation doses 0 and  $43 \cdot 10^6$  r, (2) doses 0 and  $192 \cdot 10^6$  r, (3) doses 0 and  $89 \cdot 10^6$  r.

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L 23584-65

EWT(m)/EPP(c)/EPP(n)-2 Pr-11/Pv-4 G3

ACCESSION NR: AP5000470

S/0165/64/000/001/0090/0092

AUTHOR: Azitov, S.

TITLE: Mass spectrometric analysis of the decomposition products of potassium sodium tartrate under gamma irradiation

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 4, 1964, 90-92

TOPIC TAGS: mass spectrometer, gamma radiation, ionizing radiation, Rochelle salt, tartrate decomposition

ABSTRACT: The gaseous decomposition products of gamma irradiated Rochelle salt were studied qualitatively and quantitatively in an MI-1305 mass spectrometer under conditions such that the proportionality between the partial pressure of each component and the intensity of each peak was maintained. The energy of the ionizing electrons was 45 ev, pressure in the chamber was  $1 \times 10^{-6}$  mm Hg, and at the source  $3 \times 10^{-6}$  mm Hg. Crushed samples of the salt were placed in evacuated molybdenum-glass ampoules, pressure 0.01 mm Hg, and subjected to gamma rays at  $0.5 \times 10^6$  roentgen/hr. Irradiated ampoules were exhausted into a 2200 cc gas

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ACCESSION NR: AP5010470

volume connected to a mass-spectrometer. The gas volume was connected to both MacLeod and U-type manometers for measurement of pressure. When the gas volume was evacuated to 0.001 mm Hg, the ampoule was connected to the gas volume and gas pressure was measured. Mass spectrometric analysis showed lines with mass numbers 2 ( $H_2$ ), 16 ( $CH_4$  and possibly  $O^+$ ), 17 ( $OH^+$ ), 18 ( $H_2O^+$ ), 28 ( $CO^+$  and traces of atmospheric  $N_2$ ), 32 ( $O_2$ ), 43 (unknown), 44 ( $CO_2$ ), and 45 (possibly  $C^{13}O_2$ ), with water vapor, carbon dioxide, carbon monoxide and methane predominant, in that order. A 4-g sample irradiated with  $40 \times 10^6$  roentgens produced correspondingly greater numbers of molecules of the decomposition products than a nonirradiated sample. It is also probable that a significant change in crystal structure occurred, since changes in microscopichardness and other quantities were indicated.

Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UzSSR (Institute of Physics and Technology, AS UzSSR)

SUBMITTED: 21 Nov 63

ENCL: 00

SUB CODE: EC, GP

NO REP SOV: 003

OTHER: 000

Card 2/2

AZIZOV, S. A.

9C

SOV/6176

PHASE I BOOK EXPLOITATION

Konobeyevskiy, S. T., Corresponding Member, Academy of Sciences  
USSR, Resp. Ed.

Deyatviye vadernykh izluchenii na materialy (The Effect of  
Nuclear Radiation on Materials). Moscow, Izd-vo AN SSSR,  
1962. 383 p. Errata slip inserted. 4000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk;

Resp. Ed.: S. T. Konobeyevskiy; Deputy Resp. Ed.: S. A.  
Adasinskiy; Editorial Board: P. L. Gruzin, G. V. Kurdyumov,  
B. M. Levitskiy, V. S. Lyashenko (Deceased), Yu. A. Martynuk,  
Yu. I. Pokrovskiy, and N. F. Pravdyuk; Ed. of Publishing  
House: M. G. Makarenko; Tech. Eds: T. V. Polyakova and  
I. N. Dorokhina.

Card 1/14

9C

SOV/6176

The Effect of Nuclear Radiation (Cont.)

PURPOSE: This book is intended for personnel concerned with nuclear materials.

COVERAGE: This is a collection of papers presented at the Moscow Conference on the Effect of Nuclear Radiation on Materials, held December 6-10, 1960. The material reflects certain trends in the work being conducted in the Soviet scientific research organization. Some of the papers are devoted to the experimental study of the effect of neutron irradiation on reactor materials (steel, ferrous alloys, molybdenum, avial, graphite, and nichromes). Others deal with the theory of neutron irradiation effects (physico-chemical transformations, relaxation of internal stresses, internal friction) and changes in the structure and properties of various crystals. Special attention is given to the effect of intense  $\gamma$ -radiation on the electrical, magnetic, and optical properties of metals, dielectrics, and semiconductors.

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10	
The Effect of Nuclear Radiation (Cont.)	30V/6176
Konozenko, I. D., and V. I. Ust'yanov. Effect of $\gamma$ -Rays on Properties of CdS Single Crystals	318
Titov, P. P., A. K. Kikoin, and A. Ye Buzyrnaya. Stimulating Action of X- and $\gamma$ -Rays on Flotation Process	329
Byalobzheskiy, A. V., V. D. Val'koy, and V. N. Lukinskaya. Effect of Radiation on Corrosion Properties of Metals and Alloys	332
Galushka, A. P., P. G. Litovchenko, and V. I. Ust'yanov. Methods of Investigating Properties of Semiconductors Irradiated by $\gamma$ -Quanta	341
Starodubtsev, S. V., S. A. Arizov, I. A. Domaryad, Ye. V. Peshikov, and L. P. Khiznichenko. Change in Mechanical Properties of Some Solids Subjected to $\gamma$ -Radiation	347

Card 12/14

- 6 -

ACCESSION NR: AT3007249

S/2952/63/000/000/0019/0021

AUTHORS: Starodubtsev, S. V.; Ablyayev, Sh. A.; Yermatov, S. Ye; Azizov, S. A.

TITLE: Effect of gamma radiation on the adsorptional properties of synthetic zeolites.

SOURCE: Radiatsion. effekty\* v tverd. telakh. Tashkent, Izd-vo AN UzbSSR, 1963, 19-21

TOPIC TAGS: adsorption, ordinary adsorption, supplementary adsorption, radiation-induced adsorption, zeolite, gamma ray, gamma-ray-induced adsorption, radiation, gamma radiation, temperature effect, isotherm

ABSTRACT: The paper describes an experimental investigation of the effect of gamma rays on the adsorptivity of synthetic zeolites. The tests were performed by the ordinary volumetric method on 3 Gor'kovskoye specimens of the types 4 $\text{\AA}$  (NaA), CaA 5 $\text{\AA}$ , and 13x (Nax), and two Groznoye specimens 4 $\text{\AA}$  (NaA) and CaA 5 $\text{\AA}$ . The zeolite specimens were first heat-treated thoroughly at temperatures of 350-400°C at pressures between  $10^{-1}$  and  $10^{-6}$  mm Hg for several hours. The zeolites were then exposed to gamma rays of a radiation dosage rate of 150 to 350,000 r/hr, with a total dose of 2 to  $3 \cdot 10^6$  r. The adsorptivity of the zeolites was found to be

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significantly increased; the increase grew to a certain limit depending on the intensity of the radiation dose. The effect of the glass on the test results was determined by identical control ampoules with O and H, with and without adsorbents, exposed to gamma radiation. It was found that the ampoules not containing adsorbents maintained a constant gas pressure. Therefore, the effect of the glass was found to be nil. It was found that the adsorption temperature affects the magnitude of the gamma-ray effect substantially. The radiational effect decreases at elevated temperatures, that is, a radiational anneal occurs. The effect disappears completely at 300-400°C. It is noted that following an anneal the limiting pressure occurs at lower values of the radiational dose. Comparative isotherms of supplementary and ordinary adsorption of an irradiated zeolite were plotted for dry air at -196° and at room temperature. The nature of the radiation effect observed is explained by the knocking out of a Compton electron by a primary gamma quantum, whereupon the fast electrons pass along a path of 2-3 mm within the zeolite. Having expended their energy on the ionization of the matter, they form a large number of relatively slow electrons with energies of the order of tens of ev. The resulting strong ionization forms negative and positive ions which produce excitations and other defects of various kind. The number of possible defects per gamma quantum ordinarily amounts to several tens of thousands; these defects do not differ from those obtainable by UV and X-ray impingement. The supplementary

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ACCESSION NR: AT3007249

adsorption of gases on the zeolites occurs in such defects. Orig. art. has: 3 figs.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 14Oct68 ENCL: 00

SUB CODE: MA, PA, EE, CH NO REF SOV: 005 OTHER: 000

Card 3/3

AZIZOV, Sh.G.

Effect of different space arrangements of plants on the phasic development and speed of growth in some cotton varieties. Uzb. biol.zhur. no.5:75-81 '58. (MIRA 12:1)

1. Tashkentskiy sel'skokhozyaystvennyy institut.  
(Plants, Space arrangement of) (Cotton growing)

AZIZOV, Sh. G.

Cand Biol Sci - (diss) "Growth, development, and harvest of several varieties of cotton on a background of square-hole hill check plantings /kvadratno-gnezdovyye posevyy/ with different number of plants in the nest." Tashkent, 1961. 23 pp; (Academy of Sciences Uzbek SSR, Inst of Genetics and Plant Physiology); 170 copies; price not given; (KL, 6-61 sup, 205)

ACC NR: AP6036946

SOURCE CODE: UR/0233/66/000/003/0057/0061

AUTHORS: Gadzhiev, S. N.; Chebotarev, V. N.; Namazov, F. A.; Nagdaliyeva, Yu. R.; Azizov, T. Kh.; Agarunov, M. Ya.

ORG: none

TITLE: Physicochemical investigation of organosilicon compounds. 1. Enthalpy of formation of some methylchlorosilanes

SOURCE: AN AzerbSSR. Seriya fiziko-tehnicheskikh i matematicheskikh nauk, no. 3, 1966, 57-61

TOPIC TAGS: standard enthalpy, calorimeter, calorimetry, chlorinated aliphatic compound, silane, organosilicon compound

ABSTRACT: The standard enthalpies of formation (at 25°C) of trimethylchlorosilane, dimethyldichlorosilane, and methyltrichlorosilane were determined. The investigation is an extension of earlier published work by S. N. Gadzhiev and M. Ya. Agarunov (Zh. fiz. khimii, 39, 239, 1965). The experimental procedure followed is described by S. N. Gadzhiev and K. A. Sharifov (Izv. AN Azerb. SSR, seriya fiz-tekh i matem. nauk, 1962, No. 1). The calorimeter used is described by M. P. Kozina (Diss. MGU, 1955). A schematic of the calorimeter is presented. The physical properties of the materials investigated and the experimentally measured enthalpies of formation are tabulated. It was found that the standard enthalpy of formation at 25°C for trimethylchlorosilane

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ACC NR: AP6036946

was  $-80.0 \pm 4.5$  kcal/mole, for dimethylchlorosilane  $-104.8 \pm 5.0$  kcal/mole, and for methyltrichlorosilane  $-150.5 \pm 10.0$  kcal/mole. Orig. art. has 2 tables and 2 graphs.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 008

Card 2/2

BUVAL'KIN, A.K.; AZIZOV, T.M.

Trace elements in rocks and coals of Lower Mesozoic sediments in  
the Maykyuben' Basin and their significance for paleogeography.  
Izv. AN Kazakh.SSR. Ser.geol.nauk no.4:41-57 '63. (MIRA 16:9)

1. Institut geologicheskikh nauk AN Kazakhskoy SSR, Alma-Ata.

AZIZOV, T.M.

Effect of the top and the floor of coal beds on the accumulation and  
preservation of germanium in coal. Vest. AN Kazakh. SSR 20 no.10:89.  
90 0 '64.

(MIRA 17:11)

AZIMOV, T.M.

Some characteristics of the distribution of admixture elements  
in the coals of the Alakul' deposit. Izv. AN Kazakh. SSR. Ser.  
geol. 22 no.2:61-67 Mt-Ap '65. (MLRA 18:5)

1. Institut geologicheskikh nauk imeni Satspayeva, Alma-Ata.

ACC NR: AP7002839

(A)

SOURCE CODE: UR/0233/66/000/004/0087/0090

AUTHOR: Dzhalilov, N. Z.; Azizov, T. S.; Aliyev, G. M.  
ORG: none

TITLE: Influence of electron bombardment on the electric conductivity of hexagonal selenium single crystals

SOURCE: AN AzerbSSR. Izvestiya. Seriya fiziko-tehnicheskikh i matematicheskikh nauk, no. 4, 1966, 87-90

TOPIC TAGS: selenium, semiconductor single crystal, electric conductivity, electron bombardment, crystal defect, annealing

ABSTRACT: The authors present the results of an investigation of the influence of electron bombardment on the electric conductivity of single crystals of hexagonal selenium grown from the vapor phase and from the melt. The resistance was measured with a dc bridge in conjunction with a mirror galvanometer. The bombardment and the measurement were at 300K, with the samples kept in darkness prior to the measurements to eliminate the effect of light on the conductivity. The bombardment was with 5-Mev electrons from an accelerator, in pulses of 3  $\mu$ sec length and a repetition frequency 400 cps. The results show that bombardment increases the conductivity from  $4 \times 10^{-5}$  ( $\text{ohm}\cdot\text{cm}$ ) $^{-1}$  in darkness to  $6.8 \times 10^{-4}$  within a few minutes, and then gradually to  $8 \times 10^{-4}$  after ninety minutes. The increase in conductivity is due to defects in the structure produced by the electron bombardment and to the ionizing effect of the

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ACC NR: AP7002839

irradiation on the impurity atoms. The estimated maximum energy transferred to the selenium atom by bombarding electrons of energy 1 and 3 Mev is 82 or 729 ev respectively. The tests have shown that annealing of the sample after the bombardment rapidly returns the conductivity to its initial value. While the variation of the electric conductivity of selenium as a function of the bombarding electron flux density agrees with that of germanium, the behavior of the selenium after bombardment differs from that of germanium or silicon, in that no special annealing is necessary to remove the radiation defects. Orig. art. has: 1 figure and 1 formula.

SUB CODE: 20/ SUM DATE: 00/ ORIG REF: 003/ OTH REF: 004

Card 2/2

ACC NR: AP6036947

SOURCE CODE: UR/0233/66/000/003/0068/0070

AUTHORS: Ismailzade, I. G.; Azizov, T. S.; Nesterenko, V. I.; Shamilzade, Z. M.

ORG: none

TITLE: Investigation of the influence of accelerated electrons on the structure of polycrystalline barium titanate

SOURCE: AN AzerbSSR. Seriya fiziko-tehnicheskikh i matematicheskikh nauk, no. 3, 1966, 68-70

TOPIC TAGS: irradiation effect, electron beam, polycrystal, diffractometer, barium titanate/ URS-50 IM diffractometer

ABSTRACT: The effect of accelerated electrons on the structure of barium titanate was investigated. A linear electron accelerator was used as the electron source with a pulse rate of  $400 \text{ sec}^{-1}$  and a beam width of 10 mm. The specimens were 3 mm thick, 10 mm in diameter disks of  $\text{BaTiO}_3$  annealed at 900C for two hours. The structure was analyzed by means of an URS-50 IM x-ray diffractometer. The analysis consisted of determining the position and intensity of the maxima for 002 and 200. The results show that the magnitude of spontaneous deformation of the lattice  $c/a$  increases. After irradiation, the disk was reheated for 20 minutes at 350C. This caused a reduction in the elementary cells of the specimen. Orig. art. has: 1 figure and 1 table.

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SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 006

35631  
S/195/62/003/004/001/002  
E075/E436

11600

AUTHORS: Zhabrova, G.M., Kadenatsi, B.M., Zvon'ev, N.V.,  
Yegorov, Ye.V., Azizov, T.S., Batalov, A.A.,  
Gordayeva, V.A., Glazunov, P.Ya.

TITLE: Preparation of finely divided metals and oxides by  
radiation

PERIODICAL: Kinetika i kataliz, v.3, no.4, 1962, 610-613

TEXT: A possibility was investigated of preparing metals and  
oxides in a finely divided form by irradiation of  $\text{Mg}(\text{OH})_4$ ,  
 $\text{Al}(\text{OH})_3$ ,  $\text{Fe}(\text{OH})_3$ , Ni and Cu oxalates and basic copper carbonate  
with accelerated electrons having the energy of 0.6 Mev. The  
temperature of the samples during irradiation (1 to 2 g) did not  
exceed 40 to 50°C. Thermal decomposition at 400 to 500°C was  
also carried out for comparison with the irradiated materials.  
The decomposition of all the compounds commenced at radiation  
doses exceeding  $10^8$  rads and was intense at  $10^9$  to  $10^{10}$  rads.  
At the latter doses the compounds were almost completely

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Preparation of finely ... E075/E436

decomposed. It was shown that the specific surface of the metals and oxides prepared by the irradiation method exceeds in most cases that of the samples prepared by the usual high-temperature pyrolysis. An especially marked advantage was noticed for the radiolysis of Cu and Ni oxalates. The surface area of the oxalate decomposition products consisting predominantly of metals was sometimes 10 or more times that of the decomposition products obtained by vacuum pyrolysis. Radiolysis of  $Zr(OH)_4$  and  $Fe(OH)_3$  gives dispersed oxides having considerable surface areas.  $Al(OH)_3$  is an exception,  $Al_2O_3$  produced by the radiolysis having a similar surface area to that of  $Al_2O_3$  obtained by pyrolysis. The metals and oxides prepared by radiolysis may find application as low temperature catalysts and adsorbents. There are 2 figures and 2 tables.

ASSOCIATIONS: Institut khimicheskoy fiziki AN SSSR  
(Institute of Chemical Physics AS USSR)  
Institut atomnoy energii im. I.V.Kurchatova AN SSSR  
(Institute of Atomic Energy imeni I.V. Kurchatov

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Preparation of finely ...

S/195/62/003/004/001/002  
E075/E436

Institut fizicheskoy khimii AN SSSR  
(Institute of Physical Chemistry AS USSR)

SUBMITTED: March 15, 1962

Card 3/3

ZHABROVA, G.M.; KADENATSI, B.M.; AZIZOV, T.S.; GORDEYEVA, V.I.; GLAZUNOV, P.Ya.;  
GEZALOV, A.A.

Radiation method of preparation of highly dispersed metallic oxides.  
Izv. AN SSSR. Otd. khim. nauk no. 9:1690-1692 S '62. (MIRA 15:10)

1. Institut khimicheskoy fiziki AN SSSR i. Institut fizicheskoy khimii  
AN SSSR.  
(Metallic oxides) (Colloids) (Radiation)

USMANOV, Kh.U.; AZIZOV, U.

Graft cellulose copolymers with methacrylamide. Khim. i fiz.-  
khim. prirod. i sint. polim. no.1:18-23 '62 (MIRA 18:1)

1. Chlen-korrespondent AN UzSSR (for Usmanov).

AZIZOV, U.; USMANOV, Kh.U.

Certain properties of graft copolymers of cellulose with acrylonitrile. Khim. i fiz.-khim. prirod. i sint. polim. no.1:  
24-28 '62 (MIRA 18:1)

1. Chlen-korrespondent AN UzSSR (for Usmanov).

BR

ACCESSION NR: AR4015702

8/0081/63/000/023/0542/0542

SOURCE: RZh. Khimiya, Abs. 23S28

AUTHOR: Azizov, U.; Usmanov, Kh. U.; Putiyev, Yu. P.; Tashpulatov, Yu.

TITLE: Infrared absorption spectra of grafted copolymers of cellulose with certain vinyl monomers

CITED SOURCE: Sb. Fizika i khimiya prirodn. i sintetich. polimerov. Vy<sup>z</sup>p. I. Tashkent, AN UzSSR, 1962, 29-34

TOPIC TAGS: spectroscopy, infrared absorption spectrum, polymer, polymer absorption spectrum, grafted copolymer, cellulose, cellulose copolymer, polyvinyl, radiopolymerization

TRANSLATION: By the method of radiation initiation of mixtures of cellulose with certain vinyl monomers, grafted copolymers of cellulose with methacrylate methylmethacrylate, methacrylamide, acrylonitrile and styrene were obtained and their infrared spectra were studied. In the spectrum of copolymers with methacrylate and methylmethacrylate, an intensive band appeared at  $1730 \text{ cm}^{-1}$  which corresponds to valence vibrations of a carbonyl group. At the low frequency end of the spectrum, characteristic absorption bands were obtained at 745 and  $837 \text{ cm}^{-1}$  for the copolymer with methacrylate and at 745 and  $826 \text{ cm}^{-1}$

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34899  
S/081/62/000/003/090/090  
B161/B101

AUTHORS: Usmanov, Kh. U., Aykhodzhayev, B. I., Azizov, U.

TITLE: Production of grafted copolymers of cellulose by Co<sup>60</sup>  
irradiation

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 648, abstract  
3R81 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniy  
atomn. energii, 1959, v. I. Tashkent, AN UzSSR, 1961, 295-  
298)

TEXT: Cotton cellulose cleaned by boiling in 2% NaOH solution was treated  
with acrylonitrile (AN) to obtain grafted copolymers. Initiation was  
effected by Co<sup>60</sup>  $\gamma$ -irradiation at the rate of  $25 \cdot 10^4$  r/hr. The reaction  
was performed in water, ethanol and benzene. The maximum amount of  
grafted AN groups (N content 8.56%) was obtained in water where the  
cellulose to AN ratio in the initial mixture was 1:2 and the integral dose  
 $10^6$  r. [Abstracter's note: Complete translation.] X

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RIZIEV, K. Kr.; USMANOV, Kh. G.; AZIZOV, V. A.

Supermolecular structures of graft copolymer based on cotton  
cellulose and methacrylic acid. Vysokomol. soed. 6 no. 11:1959-  
1961 N 164 (MIRA 18:2)

I. Institut khimii i tekhnologii khlepkovyy tsellulolyi,  
Tashkent.

RAZIKOV, K.Kh.; AZIZOV, U.; USMANOV, Kh.U.

Electron microscopy of cotton cellulose and its copolymers.  
Part 1. Particular features of cotton cellulose microstructure  
and of its radiation-induced graft copolymer with methacrylic acid.  
Uzb.khim.zhur. 8 no.2:66-72 '64. (MIRA 17:5)

1. NIITs<sup>?</sup> Goskhimneftekomiteta pri Gosplane SSSR.

L 33513-65 EWG(j)/EPF(c)/EPR/EWA(h)/ENT(m)/EMP(j)/T/EWA(1) PC-4/Pr-4/Ps-4/Pb  
ACCESSION NR AP5003823 RPL WW/RM S/0190/65/007/001/0019/0024

AUTHORS: Azizov, U.; Usmanov, Kh. U.; Sadykov, M. U.

TITLE: Grafted copolymers of cellulose with styrene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 19-24

TOPIC TAGS: cellulose, styrene, graft copolymer, radiation grafting/ DSh 3M  
dynamometer, Mak Ben sorption apparatus

ABSTRACT: Grafted cellulose-styrene copolymers were obtained under  $\gamma$ -ray ( $Co^{60}$ ) radiation. The graft copolymerization kinetics and some copolymer properties were studied. Fibrous cellulose in styrene solutions (5, 10 and 20% concentration) was subjected to  $1 \times 10^6 - 5 \times 10^6$  roentgen of  $\gamma$ -radiation at 70-72 roentgen/second. The mechanical properties were measured on a DSh-3M dynamometer (6% relative humidity), heat of  $H_2O$  wetting on a microcalorimeter, and steam sorption on a Mak-Ben sorption apparatus in vacuum at 250. It was found that grafting occurred in solutions of polar solvents (methanol) but not in nonpolar solvents (benzene, etc). The grafting kinetics (see Fig. 1 on the Enclosure) showed that the amount of grafted styrene increased with cellulose: styrene ratio and amount of radiation at

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L 33513-5  
ACCESSION NR: AP5003823

the same radiation intensity (54% for 3:4 at  $5 \times 10^6$  roentgen; 49 for 3:4 at  $3 \times 10^6$ ; 0 for 3:4 at  $10^6$ ). It was also found that the strength of the filters was not greatly affected (4.10 gm at 12.1% styrene, 3.94 at 47%) by grafting, but that they became more resistant to mineral acids. The heat of  $\text{H}_2\text{O}$  wetting decreased with increased styrene content (6.53 cal/gm at 12.1%, 5.15 at 25%, 3.47 at 47%), as did the water vapor sorption (6.5% at 12.1% styrene and 70% relative humidity; 5.5 at 25% and 70%; 4.3 at 47% and 70%). Orig. art. has 2 figures and 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii i tekhnologii khlopkovoy tsellulozy (Scientific Research Institute of Chemistry and Cotton Cellulose Technology)

SUBMITTED: 06Feb64

ENCL: 01

SUB CODE: 00

NO RIF SOV: 006

OTHER: 000

Card 2/3

RAZIKOV, K.Kh.; USMANOV, Kh.U.; AZIZOV, U.A.

Fibrous structure of copolymers of cellulose with methacrylamide  
and methyl acrylate. Vysckom.sond. 7 no.10:1798-1801 O '65.  
(MIRA J8:11)

1. Nauchno-issledovatel'skiy institut khimii i tekhnologii  
khlopkovoy tsellulozy, Tashkent.

USMANOV, Kh.U.; AYKHODZHAYEV, B.I.; AZIZOV, U.O.

Preparation of graft polymers of cellulose by irradiation  
with Co <sup>60</sup>. Vysokom.sosed. l no.10:1570 O '59.  
(MIRA 13:3)  
(Cellulose) (Polymers) (Cobalt--Isotopes)

AZIZOV, U.O.

SOV/984

## PHASE I BOOK EXPLOITATION

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyj simpozijum po makromolekuljarnoj khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklad 1. avtorefery. Nektaia III. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries) Section III. [Moscow, Izd-vo AN SSSR, 1960] 469 p. 56,000 copies printed.

Tech. Ed.: P. S. Kashina.

Sponsoring Agency: The International Union of Pure and Applied Chemistry. Commission on Macromolecular Chemistry.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high molecular compounds.

COVERAGE: This is Section III of a multivolume work containing papers on macromolecular chemistry. The articles in general deal with the kinetics of polymerization reactions, the synthesis of special-purpose polymers, e.g., ion exchange resins, semiconductor materials, etc., methods of delaying polymerization reactions, properties and chemical interactions of high molecular materials, and the effects of various factors on polymerization and the degradation of high-molecular compounds. No personalities are mentioned.

REFERENCES Given follow the articles.

- Semenov, Eh. N., U. M. Plisseyer, and R. S. Tillerayev (USSR). The Radiation Method of Copolymerizing Acrylonitrile With Polystyrene and Phenylcrovinyl. 170  
 Radikov, S. B., G. M. Chelokanova, I. V. Zhuravlev, and P. N. Gerasimov (USSR). Polymerization of Carbophenon and Beta-Butenoic Polyesters. 184  
 Sancio, L., and K. Gál (Hungary). Grafting Methyl Methacrylate onto Alkyls or Poly(1-Pentene) Alcohol Under the Action of X-Rays. 207  
 Lazar, M., R. Rado, and P. Farlitsch (Czechoslovakia). Grafting Methyl Methacrylate onto Polypropylene and Polyethylene. 218  
 Narozny, J. A., Z. J. Stach, and T. F. Krasnaya (USSR). The Interactions of Carboxyl-Containing Butadiene-Styrene Rubbers With Polyamides and E-Caprolactam. 224  
 Golombok, O. S., and M. Lazar (Czechoslovakia). Synthesis of Polyesters of Free Radical Crosslinking in Polyethylene. 225  
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 Rogovin, Z. A., V. A. Derevitskaya, Sun Tung, Chang Wei-Zank, and I. S. Slobodcikov (USSR). Synthesis of New Cellulose Derivatives and Other Polysaccharides. 302  
 Yermolchina, I. M., and P. N. Kaputskiy (USSR). Initiation of the Controlled Synthesis of Modified Celluloses With Oxides of Nitrogen. 310  
 Ivanyi, V. I., M. Yu. Leont'eva, T. G. Ivanova (USSR). Selective Transformations in Chains of Cellulose Molecules. 321  
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 Vasilenko, Eh. N., B. I. Arkhodzhev, and U. A. Azizov (USSR). Modification of the Properties of Cellulose by Urethane. 344 33

USMANOV, K.H.U., AZIZOV, U.O.

Proprietes des copolymères obtenus par le greffage de monomères  
vinyliques sur la cellulose

Report submitted for the International Symposium of Macromolecular chemistry  
Paris, 1-6 July 63

18.6200

S/112/60/000/024/001/003  
A005/A001

Translation from: Referativnyy zhurnal, Elektrotehnika, 1960, No. 2<sup>4</sup>, p. 6,  
# 5.11895

AUTHORS: Azizov, U.V., Sultanov, V.M.

TITLE: The Preparation of Large Single-Crystal Cathodes of Tungsten

PERIODICAL: Tr. Sredneaz. un-ta, 1959, No. 148, pp. 91-98

TEXT: A method is described of producing large single-crystals of tungsten by the powder-metallurgical processes, as well as a quick procedure for indexing the edges on such a crystal from the etch patterns, and processing methods (in particular the electric-spark method) for shaping it as needed (plane, cylindric, spheric shapes). There are 2 references. ✓

A.I.F.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

24,7400 (1035, 1160, 1164, 1385)

21585  
S/109/60/005/010/008/031  
E240/E435

AUTHORS: Azizov, U.V., Vasil'kovskiy, D.N. and Sultanov, V.M.  
TITLE: The Preparation and Indexing of Large Monocrystalline Tungsten Cathodes  
PERIODICAL: Radiotekhnika i elektronika, 1960, Vol.5, No.10,  
pp.1631-1635

TEXT: This paper was presented at the 9th All-Union Conference on Cathode Electronics in Moscow, October 1959.

Methods are described for making large single crystals of tungsten from which can be made flat, spherical or cylindrical cathodes. Such cathodes are required for experimental work, as for example the measurement of work functions, heats of absorption and the study of surface diffusion. It was found that a fine-grained tungsten powder was necessary as a raw material, for best results. The following process enabled powders with an average grain size of one micron to be prepared; industrial grades have mean grain sizes of several microns. A quantity of tungstic anhydride is reduced in a nickel boat, which is drawn through a hydrogen tube furnace with a range of temperature increasing from 550 to 900°C. During

Card 1/6

21585

S/109/60/005/010/008/031  
E240/E435

The Preparation and Indexing ...

this process an unspecified amount of the anhydride is reduced to 50 g of tungsten. The tungsten powder is then pressed into rods, after sieving, which are then sintered for 5 hours at 800 to 900°C. Difficulties were experienced due to water vapour contamination of the furnace hydrogen supply, and an increase in temperature which occurred. It was found that the best crystals grew in the parts of the rods where the temperature gradient was greatest, i.e. at the ends. For this reason, the rods were shortened from 500 to 120 - 220 mm. Their cross-sections ranged between 11.4 x 6.8 mm and 11.4 x 10.2 mm. To obtain the largest crystals, it was found necessary to increase the sintering time, while maintaining a slow rise in temperature. Details are then given of the next stage of the process in the course of which currents up to 3600 A are passed through the rods for 2 hours followed by cooling for 5 minutes. The reader is referred to earlier work (Ref.1) for a more detailed description of the technique. It was found that about 10% of the rods contained single crystals 2 to 5 cm in length, which occupied the whole cross-section of the rod. In the majority of the remainder, smaller crystals were obtained, which were sometimes separated by fine-grained metal. No consistent

Card 2/6

S/ 09/60/005/010/008/031  
E24/E435

The Preparation and Indexing ...

$$E = E_1 \left\{ \cos p - \frac{\sin p}{\sin S_1} [\operatorname{ctg} S_2 \sin(S_1 - \lambda) + \operatorname{ctg} S_3 \sin \lambda] \right\} + \\ + E_2 \frac{\sin p \sin(S_1 - \lambda)}{\sin S_1 \sin S_2} + E_3 \frac{\sin p \sin \lambda}{\sin S_1 \sin S_3} \quad (1)$$

where  $p$  and  $\lambda$  are the polar angle and width defining the macro-orientation of the facet under consideration. The specific surface energies of the stable facets closest to it, with coordinates  $(0, 0)$ ,  $(S_2, 0)$  and  $(S_3, S_1)$ , are correspondingly equal to  $E_1$ ,  $E_2$  and  $E_3$ . It is noted that the value of  $E_i$ , the interatomic force, does not affect the form of the equation. From this it is shown that it is theoretically possible for a stepped crystal structure to occur; but this is rarely found in practice. Further, it is argued that it is better to cut crystals to the desired form, rather than to rely on existing facet surfaces. A method for producing large single crystal tungsten cathodes by mechanical working is described by S.T.Martin (Ref.4: Phys.Rev., 1939, Vol.56, 947). However, the authors found that electro-spark cutting, followed by polishing and electro-polishing, gives

Card 4/6

21585

S/109/60/005/010/008/031

E240/E435

The Preparation and Indexing ...

is the result of a series of similar linear dislocations, then  
from the above it is evident that the fracture will occur in the  
[100] plane, as it does. There are 4 figures and 5 references:  
2 Soviet and 3 non-Soviet.

SUBMITTED: December 21, 1959

Card 6/6

L 9254-66

EVI(1)/EHT(1)/T/EWP(t)/EWP(d)/EWA(n)-2/EWA(c) IJP(c) JD/JG/AT

ACC NR: AP5022719

SOURCE CODE: UR/0181/65/007/009/2759/2762

AUTHOR: Azizov, U. V.; Vakhidov, U. V.; Sultanov, V. M.; Sheynberry, B. N.; Shippe, G. N.

44,55

44,55

8/3  
44,55

44,55

8/3  
44,55

ORG: Tashkent State University im. V. I. Lenin (Tashkentskiy gosudarstvennyy universitet)

55,44

TITLE: Emission properties of a molybdenum single crystal

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2759-2762

TOPIC TAGS: single crystal, molybdenum, work function, electron emission

21, 44, 55  
11, 44, 55, 21

ABSTRACT: Richardson lines were plotted for measuring the work function of electrons on the three main faces of a molybdenum single crystal: (110), (100) and (111). In addition to this, the work function of surface (111) was measured during vaporized deposition of barium on this face. The methods used in preparation of the specimens and making the measurements are described. The equipment is described in other papers. Curves are given for  $\ln I/T^2$  as a function of  $T^{-1}$  for the three faces studied. The data obtained from these curves are used for calculating the work functions and Richardson constants (see table).

Card 1/2

L 3349-66 EWT(n)/EWA(d)/T/EWP(t)/EWP(b)/EWA(c) LJP(g) JG  
ACCESSION NR: AP5017284 UR/0181/65/007/007/1970/1973

AUTHORS: Azizov, U. V.; Shuppe, G. N.

TITLE: Emission and adsorption characteristics of the faces of a tungsten single crystal

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 1970-1973

TOPIC TAGS: tungsten, electron emission, barium, adsorption, work function

ABSTRACT: The Richardson-line method was used to investigate all the faces of single-crystal tungsten of interest, namely (110), (112), (100), and (111). The electron work function from pure tungsten and from tungsten coated with barium, the average heats of adsorption of barium near the saturation point of the emission current, and the constants  $A_0(1 - r)$  ( $A_0$  -- emission constant,  $r$  -- reflection coefficient averaged over the electron energy) were measured for both pure surfaces and for barium-coated surfaces. The measurements were made in the instrument shown in Fig. 1 of the Enclosure, in which all the electrodes

Card 1/3

L 3349-66  
ACCESSION NR: AP5017284

were flat to facilitate the data reduction. All the results are summarized in the table of the Enclosure. Differences between these results and those obtained by others are briefly discussed. Orig. art. has: 5 figures, 1 formula, and 1 table.

ASSOCIATION: Gosudarstvenny universitet im. V. I. Lenina, Tashkent  
(Tashkent State University) 4655

SUBMITTED: 27Nov64 ENCL: 01 SUB CODE: SS, EM  
NR REF SOV: 006 OTHER: 002

Card 2/3

L 3349-66

ACCESSION NR: AP5017284

ENCLOSURE: 01

Table 1. Emission and absorption characteristics  
of the faces of tungsten

Face	$\nu, \text{ev.}$	$A_0, \text{n}/\text{deg}^2\text{cm}^2$	$\frac{\sigma_{\text{Ba}} - \sigma_{\text{W}_{\text{Hf}}}}{\text{ev}}$	$\sigma_{\text{Ba}} - \sigma_{\text{W}_{\text{Hf}}} \text{ ev}$	$\sigma_{\text{em}} (\frac{\text{d}P}{\text{d}\Omega})_{\text{Ar}}$ $\text{ev}/\text{deg}$
110	$5.40 \pm 0.05$	200		$2.39 \pm 0.05$	$-6 \cdot 10^{-8}$
112	$4.80 \pm 0.05$	70	$2.3 \pm 0.1$	$4.72 \pm 0.05$	$-6 \cdot 10^{-8}$
100	$4.55 \pm 0.05$	127		$5.28 \pm 0.05$	$-1 \cdot 10^{-8}$
111	$4.42 \pm 0.03$	130		$4.49 \pm 0.05$	$+5 \cdot 10^{-8}$

Card 3/3 J.P.

AZIZOV, U.Z.; VAKHIDOV, U.V.; SULTANOV, V.M.; SHEYNBERG, B.N.; SHUPPE, G.N.

Emission properties of molybdenum single crystals. Fiz. tver. tela  
7 no.9:2759-2762 S '65. (MIRA 18:10)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I.Lenina.

ABASOV, M.T.; AZIZOVA, F.M.

Advance development of a gas cap in a gas- and oil-bearing layer. Izv. AN Azerb.SSR. Ser. geol.-geog. nauk no.2:77-82  
'64. (MIRA 18:11)

ABASOV, M. T.; CHERNOMORDIKOV, M. Z.; AZIZOVA, F. M.

Possibility of using one network of wells for developing 7 and 7a  
horizons in the Karadag field. Azerb. neft. khoz. 39 no.5:27-30  
My '60. (MIRA 13:10)

(Karadag region--Oil fields--Production methods)

ABASOV, Mitat Teymur oglu; DZHALILOV, Kurban Nizameddin oglu; AZIZOVA, F.M.; ALIYEV, Z.S.; BABANLY, V.Yu.; GULAMOV, Kh.A.; IBRAGIMOV, M.R.; KAZIMOV, A.Sh.; KULIYEV, A.M.; SEMENOVA, I.I.; ROZENBERG, M.D., prof., doktor tekhn. nauk, red.; AL'TMAN, T.B., red. izd-va

[Problems of underground hydrodynamics and development of oil and gas fields] Voprosy podzemnoi gidrodinamiki i razrabotki neftianykh i gazonovykh mestorozhdenii. Baku, Azerbaidzhanskoe gos. izd-vo neft. i nauchno-tekhn. lit-ry, 1960. 254 p. (MIRA 14:11)

1. Neftyanaya ekspeditsiya AN Azerbaydzhana (for Azizova, Aliyev, Babanly, Gulamov, Ibragimov, Kazimov, Kuliyev, Semenova).  
(Oil reservoir engineering)

GRISHIN, A.P.; AKIZOVA, M.Kh.

Solubility of paraffin products from the Ozek-Suat oil in selective  
solvents. Khim. i tekhn. topl. i masel 10 no.8:12-15 Ag '65.  
(MIRA 18:9)

I. Groznyenskiy neftyanoy institut.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7

AZIMOV, G. A.

Photoinduced free radicals in the solid state. I. M. S. T. V. and  
Biofizika 9 no. 6 745-748 1964.

I. Institut biologicheskoy fiziki AN SSSR, Moscow.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7"

ACCESSION NR: AP4014691

electron attached to the sulfur atom. The hyperfine structure of the EPR spectra for such compounds is produced by the hydrogen nuclei localized near the sulfur atom. The free radical R-(S...S)<sup>+</sup>-R common to cystine, cysteine, and glutathione forms at room temperature. Light exposure of gamma-irradiated amino acids containing sulfur at 77°K leads to a significant reduction in number of free radicals responsible for the EPR "cystine signal" (120-e). EPR spectra of gamma-irradiated proteins at 77°K represent the sum of a single and a triple signal. The latter signal is produced by sulfur-bearing amino acid residue in the protein. Light exposure of gamma-irradiated proteins intensifies the "cystine" part of the EPR signal by changing the electron density distribution of the protein molecule and leads to opening of the S-S bonds. The authors "express their gratitude to L. P. Kayushin for guidance in carrying out the research and to Ya. S. Lebedev for participation in the discussion of results." Orig. art. has: 9 figures.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow  
(Institute of Biological Physics AN SSSR)

Card 2/3

BUKOVINA, M.K.; AZIZOVA, G.A.

Nature of the spectra of electron paramagnetic resonance  
of amino acids and proteins subjected to  $\gamma$ -irradiation and  
light. Biofizika 9 no. 1:33-39 (1964). (MIRA 12:7)

1. Institut biologicheskoy fiziki V. N. Karmanova, Moscow.

AZIZOVA, O.M., Cand Med Sci -- (diss) "Pathological morphology  
of experimental trichodesmotoxicosis," Samarkand, 1958, 32 pp  
(Min of Health UzSSR. Samarkand State Med Inst im Academician  
I.P. Pavlov) 225 copies (KL, 42-58, 117)

- 58 -

MAGRUPOV, A.I.; AZIZOVA, O.M.

Differential diagnosis of the morphology of alimentary toxicosis (with encephalitis) in man and of experimental trichodesmotoxicosis. Izv.AN Uz.SSR.Ser.med. no.3:3-9 '59. (MIRA 12:8)

1. Samarkandskiy meditsinskiy institut, kafedra patoanatomii.  
(FOOD POISONING) (ENCEPHALITIS)

ACCESSION NR: AR5016325

TR/044 65/ 00/06/2002 'BG'  
510:517.944/.947

SOURCE: Ref. zh. Matematika, Abs. 6B487

AUTHOR: Anizova, S.

TITLE: Solution of Leybenzon equations on the "Ural" electronic computer

CITED SOURCE: Tr. po vychisl. matem. i tekhn. Tashkent, AN UzSSR, 1962(1963), 5-10

TOPIC TAGS: differential equation, boundary value problem, gas dynamics

TRANSLATION: The problem of non-steady-state motion of a gas with constant compressibility whose solution leads to solution of the nonlinear differential equation

$$\frac{\partial p}{\partial t} = f, \frac{\partial p}{\partial x}$$

is investigated. Algorithms are given for solution of two boundary value problems corresponding to two conditions of the gas sample: 1) the amount of sampled gas is constant; 2) the pressure at the face of the aperture is constant. For the first and second boundary value problems a block-scheme program for solution by means of iterations is given. For the second boundary value problem a block-scheme program for solution by the method of finite differences with use of an implicit scheme is

Cont 1/2

1. 54093-65

ACCESSION NR: AR5016325

given. Bibliography 2 entries. I. Shelikhova

SUB CODE: MA, ME ENCL: 00

Card

Jm  
2/2

AZIZOVA, S.S.; TIKHONOV, V.P.

Pathohistological changes in the rabbit heart after the  
ligation of the coronary artery and the treatment with  
olitoriside and corchoroside. Vop. biol. i kraev. med.  
(MIRA 17:2)  
no.4:456-459 '63.

AZIZOVA, S.S.

Effect of olitoriside and corchoroside in some experimental pathological conditions of the heart. Farm. i toks. 27 no.1:  
48-53 Ja-F '64. (MIRA 17:11)

1. Laboratoriya farmakologii i khimioterapii (zav. - dotaent  
I.K. Kamilov) Instituta khimii rastitel'nykh veshchestv AN  
Uzbekskoy SSR.

MURTAZAYEV, A.M.; AZIZOVA, T.K.

Overvoltage due to oxygen liberation on zirconium in alkaline  
solutions. Uzb. khim. zhur. no.3:69-74 '58. (MIRA 11:9)

1. Institut khimii AN UzSSR.  
(Oxygen) (Overvoltage) (Zirconium)

ANALOGA, U. S. A.

Materials for study of popular medicinal plants of Crimea. Moliva Viter, 1940.  
24 p.

Cyr.4 RS4C

AZIZYAN, A., red.

[Path to outer space; materials from the newspaper "Pravda" about  
the three Soviet artificial earth satellites] Put' v kosmos;  
materialy gazety "Pravda" o trekh sovetskih iskusstvennykh  
sputnikakh Zemli. Moskva, Izd-vo "Pravda," 1958. 319 p.  
(Artificial satellites) (MIRA 11:9)

AZIZYAN

Blood-sucking mosquitoes in the hollows of trees in the environs  
of Erevan. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki. 4 no. 12:  
1169-1172 '51. (MLRA 9:8)

1. Institut malyarii i meditsinskoy parazitologii Ministerstva  
zdravookhraneniya Armyanskoy SSR.  
(ERIVAN--MOSQUITOES)

AZIZYAN, A. A.

Rice fields as an ecological biotope for the development of Anopheles larva in  
Armenia. Dokl. AN Arm. SSR. 13 No. 1, 1952.

SO: MLRA. November 1952.

AZIZYAN, A.G.; MELIKYAN, R.A.; SMIRNOV, N.I.

Hydrodynamics of bubbling processes. Report No.1: Rate of mass diffusion of gas bubbles in a liquid medium as a function of the nature and depth of the liquid and the dispersion and velocity of the gas. Izv. AN Arm. SSR, Ser.tekh.nauk 14 no.2:31-42 '61.  
(MIRA 14:3)

(Bubbles)

AZIZYAN, A.G.; SMIRNOV, N.I.

Hydrodynamics of bubbling processes. Izv. AN Arm. SSR. Ser.  
tekhn. nauk 17 no.6:53-58 '64. (MIRA 18:3)

1. Yerevanskiy politekhnicheskiy institut im. K. Markska.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7

SAYARYAN, A.G.; KOGHARYAN, K.S.; AZIZYAN, A.G.; KAZARYAN, Zh.A.

Preparation of polyvinyl formal ethylal from aqueous dispersion  
of polyvinyl acetate. Part 2: Effect of the conditions of  
hydrolysis of aqueous dispersion of polyvinyl acetate on the  
quality of polyvinyl formal ethylal. Izv. AN Arm. SSR, Khim. nauki  
17 no.6:699-702 '64. (MIRA 18:6)

L. Yerevanskiy politekhnicheskiy institut imeni Karla Markska,  
kafedra tekhnologii osnovnogo organicheskogo sinteza.

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7"

AZIZYAN, A.G.; MELIKYAN, R.A.; SMIRNOV, N.I.

Hydrodynamics of bubbling processes. Report No.2: Derivation of equations determining mass emersion of gas bubbles in a liquid medium in case of bubbling and mixed processes. Izv. AN Arm. SSR. Ser. tekhn. nauk 14 no.3:59-69 '61. (MIRA 14:8)  
(Bubbles)

AZIZYAN, Ateik Regamovich

Land rent relations in the Soviet village Moskva, Gos. izd-vo, 1928. 204 p. Ekonomicheskaja  
biblioteka (52-52117)

HD1339.R9A9

AZIZYAN, A.E.

Treatment of tuberculous peritonitis by transfusion of erythrocytes.  
Khirurgiia, Moskva no.11:69-74 Nov 1953. (CIML 25:5)

1. Of L'vov Institute of Blood Transfusion (Director -- Docent. D. G. Petrov; Scientific Supervisor -- Prof. I. I. Fedorov).

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7

AZIZYAN, Abyk Kegamovich

[Discussion in the press of problems of science, schools and colleges]  
Osveshchenie v pechati voprosov nauki, shkol, vuzov. Moskva,  
1957 42 p.  
(Science) (Education)

(MLRA 10:5)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102730001-7"

PHASE I BOOK EXPLOITATION

SOV/5666

Azizyan, A. K., and V. F. Reut, eds.

Polet Gagarina; materialy, opublikovannyye v "Pravde" (Gagarin's Flight;  
Materials Published in "Pravda") Moscow, Izd-vo "Pravda," 1961. 46 p.  
300,000 copies printed.

Tech. Ed.: L. Novikova.

PURPOSE: This booklet is intended for general readers.

COVERAGE: The booklet contains, in addition to a eulogy of Gagarin's space flight, a brief description of the space ship "Vostok" and some information on the medical and biological problems of the flight. Some idea of astronaut training is given. A photo of the Vostok's instrument panel and one of Gagarin in a space suit appear in the text. No personalities are mentioned. There are no references.

Card 1/2

AZIZYAN, A.K., otv. za vypusk; REUT, V.F., otv. za vypusk; SELYUK, S.I.,  
otv. za vypusk; SMIRNOV, V.V., otv. za vypusk; NOVIKOVA, L.,  
tekhn.red.

[The first flight of man into space; materials published in  
"Pravda."] Pervyi polet cheloveka v kosmos; materialy, opubliko-  
vannye v "Pravde." Moskva, Izd-vo "Pravda," 1961, 343 p.  
(MIRA 14:3)

(Astronautics)

AZIZYAN, A.K., otv. za vypusk; REUT, V.F., otv. za vypusk; SMIRNOV, V.V.,  
otv. za vypusk; NOVIKOVA, L., tekhn. red.

[Twenty five hours of space flight] 25 chasov v kosmicheskem polete;  
materialy, opublikovанные в "Правде." Москва, Изд-во "Правда," 1961.  
382 p.

(MIRA 14:10)

(Astronautics)

AZIZYAN, A.K.; ANDRIYANOV, B.V.; BARASHEV, F.R.; BUGAYEVA, M.I.; VASIL'YEV, N.I.; DENISOV, N.N.; ZASLAVSKIY, B.Ye.; OSTROUMOV, G.N.; TYUPAYEV, A.S.; ADZHUBEY, A.I., red.; GORYUNOV, D.P., red.; IL'ICHEV, L.F., red.; SATYUKOV, P.A., red.; SIVOLOBOV, M.A., red.; SKURIDIN, G.A., red.; TOLMACHEV, A.V., red.; DANILINA, A.I., tekhn. red.

[Dawn of the outer space era] Utro kosmicheskoi ery. Moskva, Gos-politizdat, 1961. 762 p. [Phonograph record "World flight to the stars. Soviet man in outer space;" report] Gramofonnaia plastinka "Vsemirnyi reis k zvezdam. Sovetskii chelovek v kosmose"; reportazh. (MIRA 14:10)

1. Redaktsiya gazety "Pravda" (for Azizyan, Denisov). 2. Komitet po radioveshchaniyu i televideniyu (for Andriyanov). 3. Redaktsiya gazety "Komsomol'skaya pravda" (for Barashev). 4. Redaktsiya gazety "Sovetskoye foto" (for Bugayev). 5. Redaktsiya gazety "Krasnaya zvezda" (for Vasil'yev). 6. Gosudarstvennyye izdatel'stvo politicheskoy literatury (for Zaslavskiy). 7. Redaktsiya gazety "Izvestiya" (for Ostroumov). 8. Telegrafnoye agenstvo SSSR (for Tyupayev).  
(Astronautics)

BALKIN, N.A., otv. za vypusk; AZIZYAN, A.K., otv. za vypusk;  
DUBROVIN, B.A., otv. za vypus; REUT, V.F., otv. za vypusk;  
CHEBENKO, M.B., otv. za vypusk; NOVIKOVA, L.D., tekhn.  
red.; MASLENNIKOV, V.V., tekhn. red.; SHUMAN, L.I., tekhn.  
red.

[Earth-space-earth] Zemlia - kosmos - Zenlia; sbornik mate-  
rialov, opublikovannykh v gazete "Pravda." Moskva, 1962.  
95 p.

(Nikolaev, Andrian Grigor'evich, 1929- )  
(Popovich, Pavel Romanovich, 1930- )

CHERNENKO, M.B.; AZIZYAN, A.K.; REUT, V.F.; DUBROVIN, B.A.;  
MASLENNIKOV, V.V., tekhn. red.

[Nikolayev and Popovich in outer space; a book on the  
unprecedented group flight of the spaceships "Vostok-3"  
and "Vostok-4" around the earth] V kosmose Nikolaev i  
Popovich; kniga o besprimernom gruppovom polete vokrug Zemli.  
kosmicheskikh korablei "Vostok-3" i "Vostok-4". Moskva,  
Izd-vo gazety "Pravda," 1963. 495 p. (MIRA 16:6)  
(Vostok (Manned satellite))

PHASE I BOOK EXPLOITATION

SOV/6450

Chernenko, M.B., A.K. Azizyan, V.F. Reut, and B.A. Dubrovin, eds.

V kosmose Nikolayev i Popovich; kniga o besprimernom gruppovom polete  
vokrug Zemli kosmicheskikh korabley "Vostok-3" i "Vostok-4"  
(Nikolayev and Popovich in Space; A Book on the Unprecedented Group  
Flight of the Spaceships "Vostok-3" and "Vostok-4" around the  
Earth) [Moscow] "Pravda", 1963. 495 p. 50,000 copies printed.

Tech. Ed.: V.V. Maslennikov.

PURPOSE: This book is intended to acquaint the general reading public  
with the various phases and results of the Nikolayev and Popovich  
flights.

DOVERAGE: The book covers many facets of the Vostok-3 and Vostok-4  
flights as reported in TASS, official documents, press conferences,  
articles, interviews, etc. The material ranges from official  
flight-progress reports to poetic eulogies of the cosmonauts and  
their flights. Many photographs and illustrations are included.

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AZIZ'YAN, A.Ye.

New system for the processing of tobacco mixtures containing broad-leaf raw material. Izv.vys.ucheb.zav.; pishch. tekhn. no.3:108-113 '63. (MIRA 16:8)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra tekhnologii tabaka.  
(Tobacco industry)

USSR/Industrial Microbiology

F

Abs Jour : Ref Zhur Biol., No 1, 1959, 877

Author : Azizyan, G.

Inst : Armenian State Corresponding Pedagogic Institute

Title : Experimental Data from Investigation of Spirochete of  
Tick Relapsing Typhoid, "Yerevan" Strain in Armenia

Orig Pub : Sb. nauchn. tr. Arm Gos. zaochn. ped. in-t, 1957, No 4,  
Issue 2, 221-234

Abstract : Six strains of tick relapsing typhoid isolated in Armenia  
in 1950 are described. Under natural conditions the vec-  
tor is the tick *Aleurolobius nasperus*. The most suscepti-  
ble rodent to the "Yerevan" strain is the Guinea pig.  
Two instances of human illness are described. In both  
cases penicillin therapy was ineffective. -- Z.A. Yakuto-  
vich

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AZIZYAN, L.G.

Investigating the storability of grapes (in the Armenian S.S.R.  
Biokhim. pl.i ovoshch. no.7:224-229 '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut vinogradarstva, vinodeliya  
i pivovodstva Ministerstva sel'skogo khozyaystva Armyanskoy SSR.  
(Armenia---Grapes---Storage)

KHACHATRYAN, A.L.; AZIZYAN, L.G.

Effect of potassium fertilizers on the crop, quality and keeping  
quality of grapes. Kons. i ov.prom. 19 no.1:29-31 Ja '64.

(MIRA 17:2)

1. Arznyanskiy nauchno-issledovatel'skiy institut vinogradarstva, vi-  
nodeliya i plodovodstva.

ISAGULYANTS, V.I.; AZIZIAN, T.A.

Synthesis of aroxychlorobutenes [with summary in English]. Inv.  
AN Arm.SSR.Est.nauki no.4:71-77 '47. (MIRA 9:8)

1. Deystvitel'nyy chlen AN Armyanskoy SSR.  
(Butene)

AZIZYAN, T.A.

CA

10

Oxidation of derivatives of 1,3 dichloro-2-butene. II.  
Synthesis of aryloxyacetic acids. V. I. Tsiglyants and  
T. A. Azizyan (Chem. Inst., Brevan, Doklady Akad.  
Nauk SSSR 90, No. 1, 21 (1947); cf. *ibid.* No  
80, 1944. *PhOCH<sub>2</sub>* (47 g.), 20 g. KOH, and 117 g. Cu  
treated dropwise with 63 g.  $\text{MgCl}_2\text{CHCl}_2\text{Cl}$  and kept 10  
hrs. at 100° gave *p*-Chloro-2-butenoic acid,  $\eta_1^{\text{D}} 105^\circ$ ,  $d_4^{18} 1.1148$ ,  $n_D^{20} 1.5435$ . *m*-Cresol yields the *m*-isomer analog,  $\eta_1^{\text{D}} 105^\circ$ ,  $d_4^{18} 1.02-5^\circ$ ,  $d_4^{18} 1.0000$ ,  $n_D^{20} 1.5401$ . Treatment of the ethers  
with powd.  $\text{KMnO}_4$  in  $\text{Me}_2\text{CO}$  at 37° over 3 hrs. gave, resp.,

68% *p* $\text{HOCH}_2\text{CO}_2\text{H}$ , m. 96°, and 63% *m*- $\text{OC}_6\text{H}_4\text{OCH}_2\text{CO}_2\text{H}$ , m. 102°.  
G. M. Kosolapoff

ISAQULYANTS, V.I.; AKIZYAN, T.A.

Synthesis of p-tert-butylphenoxyacetic acid. Dokl. AN Arm. SSR 9  
no.123-26 '48. (MIRA 9:10)

1. Deystvit'nyy chlen Akademii nauk Armyanskoy SSR (for Isagul-  
yanits). 2. Akademiya nauk Armyanskoy SSR, Yerevan.  
(Acetic acid)

ABIZIANY, I. A.

"Investigations on the Synthesis of Aroxyacetic Acids and Some of Their Derivatives."  
Cand Chem Sci, Inst of Chemistry, Acad Sci Armenian SSR, Yerevan, 1954. (KL, No 4, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (13)  
SO: Sum, No. 598, 29 Jul 55

ISAGULYANTS, V.I., akademik; AZIZYAN, T.A.

Synthesizing some simple esters of glycelic acid on the basis of cellulose and 1,3-dichlorobutene-2. Dokl. AN Arm. SSR 27 no.2:75-80 '58. (MIR 11:10)

1. Institut organicheskoy khimii AN Armyanskoy SSR. 2. AN Armyanskoy SSR (for Isagveyants).  
(Glycelic acid) (Cellulose) (Butene)

BABAYAN, A.T.; INDZHIKYAN, M.G.; AZIZYAN, T.A.

Alkylation in an aqueous medium by means of quaternary ammonium salts. Dokl. AN Arm. SSR 31 no. 2:79-86 '60.

(MIRA 13:11)

1. Institut organicheskoy khimii Akademii nauk Armyanskoy SSR. 2. Chlen-korrespondent AN Armyanskoy SSR. (for Babayan).  
(Alkylation) (Ammonium salts)

ISAGULYANTS, V.I., akad.; AZIZYAN, T.A.

Oxidation of chlorides of the vinyl type. Part 2: Synthesis and  
oxidation of certain  $\gamma$ -chlorocrotyl ethers of phenols substituted  
in the nucleus. Dokl. AN Arm. SSR 30 no.5:279-286 '60. (MIRA 13:8)

1. Institut organicheskoy khimii Akademii nauk Armyanskoy SSR.
2. Akademiya nauk Armyanskoy SSR (for Isagulyants).  
(Phenols)

BELETSKAYA, I.P.; REUTOV, O.A.; AZIZYAN, T.A.

Reactions of the substitution of halogen for mercury atom combined with saturated carbon atom. Report No.4: Interaction between benzylmercury chloride and bromine in carbon tetrachloride. Izv. AN SSSR Otd.khim.nauk no.2:223-227 F '62.  
(MIRA 15:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Mercury compounds)  
(Bromine)

BELETSKAYA, I.P.; AZIZYAN, T.A.; REUTOV, O.A.

Substitution of the mercury atom combined with a saturated carbon atom by halogen. Report No.5: Interaction of benzyl mercury chloride with bromine in the presence of ammonium bromide in polar solvents. Izv.AN SSSR.Otd.khim.nauk no.3: 424-430 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Mercury compounds) (Bromine) (Substitution (Chemistry))

BABAYAN, A.T.; AZIZYAN, T.A.; ARAKELYAN, E.M.; GEVORKYAN, S.B.;  
MIRZOYAN, M.R.

Cleavage reactions in quaternary ammonium compounds. Report No.1:  
Reaction of salts containing a butyn-2-yl group with alkali  
hydroxides. Izv.AN Arm.SSR.Khim.nauki 15 no.5:429-434 '62.  
(MIRA 16:2)

1. Institut organicheskoy khimii AN Armyanskoy SSR.  
(Ammonium compounds).  
(Alkalies)  
(Butynyl group)

BELETSKAYA, I.P.; AZIZYAN, T.A.; REUTOV, O.A.

Effect of oxygen-containing additions on the mechanism underlying  
the reaction of benzyl mercury chloride with bromine in carbon  
tetrachloride. Izv. AN SSSR. Ser.khim. no.7:1332-1333 Jl '63.  
(MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Mercury organic compounds)  
(Bromine)

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CIA-RDP86-00513R000102730001-7

ABSTRACT

Non-uniform local theorems for a class of random quantities.  
V. V. TashGU no. 229:3-10 '63. (MR 18:7)

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ACC NR: AP6023025

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AUTHOR: Azlarov, T. A.; Mansurov, Kh.29  
28  
BORG: Tashkent State University imeni V. I. Lenin (Tashkentskiy gosuniversitet)

TITLE: On the accuracy of approximation of functions by polynomials of a certain class

SOURCE: AN UzSSR. Izv. Ser fiz-matem n, no. 2, 1966, 3-7

TOPIC TAGS: approximation method, polynomial, FUNCTION

ABSTRACT: The accuracy of approximation of a function of the class  $C[0, 1]$  by a new class of polynomials of the type

$$P_n(f, x) = \frac{1}{\sqrt{n\pi}} \sum_{k=0}^n f\left(\frac{k}{n}\right) \left[1 - \left(\frac{k}{n} - x\right)^2\right]^n$$

is discussed. It has been previously shown that

$$|P_n(f, x) - f(x)| \leq \left(1 + \frac{\gamma^2}{2}\right) \omega\left(\frac{1}{\sqrt{n}}\right) + \frac{C_1}{\sqrt{n}},$$

where  $\omega$  is the modulus of continuity and  $C_1$  is a constant depending on  $f$ . It is shown

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ACC NR: AP6023025

that this estimate can be improved. The following inequality is proved

$$|P_n(f, x) - f(x)| \leq \frac{3}{2} \omega\left(\frac{1}{\sqrt{n}}\right) + \frac{C_1}{n},$$

It is also shown that

$$P_n(f, x) = f(x) + \frac{0.5f''(x) - 0.75f'(x)}{2n} + \frac{p_n}{n},$$

For functions with continuous second derivative, the functions

$$\tilde{P}_n(f, x) = P_n(f, x) - \frac{0.5P_n(f'', x) - 0.75P_n(f, x)}{2n}$$

are defined. These polynomials converge more rapidly than the  $P_n$ . In fact,

$$\tilde{P}_n(f, x) = f(x) + o\left(\frac{1}{n}\right).$$

The authors thank S. Kh. Sirazhdinov for his interest in the work. Orig. art. has: 13 formulas.

SUB CODE: 20/ SUBM DATE: 10May65/ ORIG REF: 001/ OTH REF: 001

Card 2/2 fv

AZKISKIY, V. A.

20771. Azkiskiy, V. A. Shiroko raspaostranit' metody elettropil'sheka N. N. Kristarava.  
Lec. prom-st', 1949, No. 6, s. 4-7.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

GOSTEV, V.S.; SAAKOV, A.K.; AZLETSKAYA, A.Ye.; PERELAZNYY, A.A.; NAZARENKO, N.A.; MAZINA, N.M.; KULAGIN, A.N.; ZYKOV, Yu.V.; NIKITENKO, A.A.; SKACHKOV, N.I.

Comparative immunochemical study of antisera to tissue homogenates and the mixtures of their nonprotein fractions. Biul. eksp. biol. i med. 57 no.4:94-97 Ap '64. (MIRA 18:3)

1. Laboratoriya immunokhimii (zav. - prof. V.S. Gostev) Instituta eksperimental'noy biologii (dir. - prof. I.N. Mayskiy) AMN SSSR, Moskva. Submitted May 17, 1963.

SOKOL'SKIY, D.V., akademik; ZAKARINA, N.A.; AZIKUMBAYEVA, G.D.

Effect of cadmium ions on the adsorption of hydrogen on a palladium-coated platinum electrode. Dokl. AN SSSR 148 no. 3:630-632 Ja '63.

(MIRA 16:2)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for Sokol'skiy).

(Cadmium salts) (Hydrogen) (Adsorption)  
(Electrodes, Platinum)

SIRAZHDINOV, S.Kh.; AZLAROV, T.A.

A uniform local theorem. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 7  
no.2:32-37 '63.  
(MIRA 16:6)

1. Institut matematiki imeni V.I.Romanovskogo AN UzSSR.  
(Probabilities)

AZLETSKAYA, A.Ye.

Obtaining filterable forms of *E. coli* under favorable and unfavorable cultivation conditions. Biul. ekspr.biol.i med. 50 no.9:104-107 8 '60.  
(MIRA 13:11)

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(ESCHERICHIA COLI)